I received my Ph.D summa cum laude from the Hebrew University Israel in 1987. My thesis project was to study the sodium-calcium exchanger which is an essential component in maintaining the calcium ions homeostasis in neuronal cells. We had purified this protein and characterized it immunologicaly. We had also studied its electrical properties. From this study I have gained an experience in protein chemistry and purification of membrane proteins.

For post-doctoral training I had joined the laboratory of Dr. Eric Kandel in the center of neurobiology and behavior ,Columbia University as a research associate. The main interest of Dr. kandel laboratory is the molecular mechanism of learning and memory. Pervious studies have shown that the formation of long term memory requires both transcription and translation . The goals of my project were to identify and characterize the genes and proteins that are involved in the formation and the maintenance of long term memory. To do so we have chosen to study the long term sensitization of the gill-siphon reflex a non associative form of learning in Aplysia Californica. We have successfully identified and characterized some of these genes and published these results (see the enclosed list of publications)

The main interest of my laboratory at Tel Aviv university is to study the molecular and the biochemical mechanism underlining "programmed cell death". This phenomenon plays a key role in the normal development of multicellular organisms. It has been shown that "programmed cell death" is an "active" process that requires both transcription and translation. My long term goals are to identify and characterize genes and proteins that mediate "programmed cell death" and to find the relationship between "programmed cell death" and neuronal cell death caused by neurodegenerative diseases and normal aging. To carry out this project I will use as a model system a primary culture of neuronal cells whose death can be triggered and controlled by growth factors. My specific aims are:

1. To identify Death Associated Proteins (DAPs) or Thanatins. Cellularly locate them, Purify them and obtain partial amino acid sequence.

2. To clone the DAPs genes and study their regulation in connection to the death process.

3. To study the intracellular signals resulted from triggering the death process. To do so we will study the phosphrylation pattern of the proteins using the experimental paradigm described above.

These studies will employ a broad range of scientific disciplines and techniques. My basic training in biochemistry, neurobiology, molecular biology and protein chemistry provides me with the necessary background.

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